emerald PUBLISHING

International Journal of Prisoner

Trust, Efficacy and Ethicacy when testing prisoners for Covid19

Journal:	*International Journal of Prisoner Health*
Manuscript ID	IJPH-10-2020-0084.R2
Manuscript Type:	Practitioner Paper
Keywords:	Prison, Prisoners, Prison staff, Covid-19, testing, trust

Trust, Efficacy and Ethicacy when testing prisoners for Covid19

Abstract

Purpose

The outbreak of the SARS-CoV-2 virus and subsequent Covid-19 illness has had a major impact on all levels of society internationally. The extent of the impact of Covid-19 on prison staff and prisoners in England and Wales is unknown. Testing for Covid-19 both asymptomatic and symptomatic, as well as for antibodies, to date, has been minimal. The widespread testing of Covid-19 in prisons poses philosophical and ethical questions around trust, efficacy and ethicacy.

Design/Methodology/Approach

This paper is both descriptive, providing an overview of the widespread testing of Covid-19 in prisoners in England and Wales, and conceptual in that it discusses and argues the issues associated with large-scale testing. This paper provides a discussion, using comparative studies, of the issues associated with large-scale testing of prisoners across the prison estate in England and Wales (120 prisons). The issues identified in this paper are contextualised through the lens of Covid-19, but they are equally transferrable to epidemiological studies of any pandemic. Given the prevalence of Covid-19 globally and the lack of information about its spread in prisons, at the time of writing this paper, there is a programme of asymptomatic testing of prisoners. However, there remains a paucity of data on the spread of Covid-19 in prisons due to the progress with the ongoing testing programme.

Findings

We argue that the widespread testing of prisoners requires careful consideration of the details regarding who is included in testing, how consent is gained and how tests are administered. This paper outlines and argues the importance of considering the complex nuance of power relationships within the prison system, between prisoner officers, medical staff and prisoners, and the detrimental consequences.

Practical implications

The widespread testing of Covid-19 presents ethical and practical challenges. Careful planning is required when considering the ethics of who should be included in Covid-19 testing, how consent will be gained, who and how tests will be administered as well as very practical challenges around the recording and assigning of Covid-19 test kits inside the prison. The current system for the general population requires scanning of barcodes and registration using a mobile number, these facilities are not permitted inside a prison.

Key Words

Covid-19; testing; prisoner; prison; ethics; trust; efficacy; ethicacy

Introduction

In February 2020, the International Committee on Taxonomy of Viruses (ICTV) identified a new virus, which it named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This name was chosen because the virus is genetically related to the coronavirus responsible for the SARS outbreak of 2003. However, while related, the two viruses are different. The WHO in the International Classification of Diseases (ICD) named the diseases resulting from the virus as Covid-19 (WHO, 2020).

The outbreak of Covid-19 during the spring of 2020 paralysed countries and forced some to adopt draconian measures to stem the pandemic (Casella, 2020; Christensen, 2020; Lancet, 2020). With countries having gone into a forced lockdown with limits on movement and all but essential businesses closed, the general public experienced a small glimpse as to what it is like to have one's freedoms restricted (Gostin & Wiley, 2020). Yet, for the 80,000 individuals who are currently detained in prisons in England and Wales, curbs on their movement is a normal way of life (MOJ, 2020). The UK government estimate that during the intital stages of the pandemic, approximately one quarter of all prison officers and staff were unable to go to work due to voluntary self-isolation because they either contracted the Covid-19 disease, lived with someone who had it or were identified as at risk of contracting the disease (MOJ, 2020a). This has placed further pressure on the prison system to ensure that safe levels of staffing are maintained. This has resulted in many prisons offering restricted regimes to prisoners (MOJ, 2020b). Further restrictions have been placed on the already limited freedoms that prisoners have. For example, prisoners are now spending more time locked in their cells and their allotted time for recreational activities and mixing with other prisoners (association time) has been reduced. Access to the gymnasium, library and education courses have all been curtailed (Prisoners Education Trust, 2020). Additionally, visits by family members, lawyers and substance misuse workers has also ceased. These measures have been designed to limit the spread of the disease, provide a means of containment and ensure prisoner safety resulting from reduced levels of staff (MoJ, 2020c). The Howard League for Penal Reform (2020) has urged the UK government to take urgent action to contain the pandemic, which has the potential to lead to an intolerable human cost in terms of the lives of both staff and prisoners.

Whilst reporting of confirmed Covid-19 cases in prisoners has been improved (GOV, 2020) the extent to which individuals (prison officers, staff and prisoners) have been affected by Covid-19 across the prison system is unknown. The precise number of prisoners affected by Covid-19, both symptomatically and asymptomatically, is still undetermined. Allison (2020) and the Prison Reform Trust (2020) argue that the only way to understand the epidemiology of Covid-19 in prisons is to undertake a widespread programme of testing of all prisoners.

From an epidemiology perspective, it is important to understand the prevalence of infection for the prison service who have a responsibility to preserve life and maintain a safe environment for prisoners (MoJ, 202c). As closed environments with a vulnerable population, Public Health England (PHE) perceive prisons as analogous to social care settings (such as care homes for the elderly and vulnerable) where there are risks of 'explosive outbreaks' during a pandemic. If this were to happen, prison healthcare systems would become overwhelmed (Kinner et al., 2020). In December 2020, the incidence of infection started rising exponentially in the community meaning the threat level to prisons was also escalated. From a public health prespective, this reinforced the need to ensure an understanding of the

prevalence of Covid-19 in all closed environments. Indeed, some of the issues explored in this paper, such as consent will be applicable to care home settings.

Mass testing for Covid-19 aims to find individuals with active infection who are asymptomatic or pre-symptomatic, thus increasing the risk of infecting others through proximity, so that quarantine and rapid finding and testing of close contacts, can interrupt spread (Raffle, Pollock & Harding-Edgar. 2020). It is important to note that mass testing generally is not limited to individuals who are either asymptomatic or pre-symptomatic of an illness. However, the current programme of testing in prisons is designed for this purpose only.

The testing of symptomatic prisoners has been routinely undertaken with an imposed period of isolation. However, the widespread testing of all prisoners presents prison management with a number of challenges, in particular around the ethicacy of mass testing [in this case the moral principle associated with testing of prisoners] and heightened issues of trust resulting from perceived scepticism amongst the prison population. This paper will evaluate notions of trust, ethicacy, prisoner consent and power through a lens of testing of prisoners in England and Wales and how prisons might go about mitigating some of these challenges, while ensuring the maximum number of prisoners can be legitimately tested for Covid-19.

Whilst there is some theoretical and empirical evidence to underpin the conceptual ideas discussed in this paper, the evidence relating specifically to matters surrounding Covid-19 are limited. Consequently, a full or rapid systematic review at this stage would not be possible. The authors have searched the existing evidence to provide first, a descriptive account and overview of the widespread testing of Covid-19 in prisoners in England and Wales, and second, a conceptual account that discusses and argues the issues associated with large-scale testing.

The international picture

The challenges around testing of prisoners for Covid-19 is not unique to England and Wales. In order to provide some context to the paper, this section provides an overview of the case for prisoner testing. The WHO (2020a) state that prison settings, where physical distancing is often not an option, have been hit particularly hard by Covid-19 and are at a risk of suffering from outbreaks of the disease. This vulnerability is aggravated by the weaker health profile of prison populations, poor prison conditions and prison overcrowding. Despite efforts to prevent the spread of disease in prisons the WHO (2020a) reported that in July 2020, at least 100,000 prisoners in more than 80 countries had become infected. However, by December 2020 reports from the United States of America stated that one in five prisoners, equating to 275,000 alone, have contracted Covd-19 (Assoicated Press, 2020). In Africa, almost all countries have adopted a similar approach with state governments instructing the judiciary to avoid sentencing people to prisons to prevent the spread of the disease (Muntingh, 2020). Franco-Paredes, et al., (2020) in their study of American prisons, have found that overcrowding, insufficient sanitation, poor ventilation and inadequate healthcare in prisons are acting as a breeding ground for Covid-19 disease outbreaks. This is illustrated in data in Table 1 on Covid-19 cases. However, they go on to state that the true extent of the epidemic inside the walls of prisons and jails in the US is largely unknown because of undertesting and underreporting.

Data source	COVID-19 cases among jail-prison residents	COVID-19 cases among staff	COVID-19 deaths among residents	COVID-19 deaths among staff in jails/prisons
UCLA Law COVID-19 Behind Bars[a]	38,616	10,182	470	42
COVID Prison Data[b]	29,519	7402	392	20
CDC Data (May 6 Updated Guidance Correctional Facilities)[c]	4,893	2,778	88	15
The Marshall Project[d]	29,251	7,435	415	33

Table 1: Comparison of four different initiatives compiling data on COVID-19 confirmed cases and deaths among prisoners and staff in correctional facilities across the US. Franco-Paredes, et al. (2020)

Further, they state more generally that detention and incarceration of any kind involving large groups of people living in cohorts in confined spaces creates many challenges in curbing the spread of Covid-19.

There have been various reports (Franco-Paredes, et al. (2020); WHO (2020a)) citing reasons for the high death rates of prisoners. However, little has been published on the measures being taken by different countries. Measures such as reducing the numbers of prisoners entering prisons or the early release of prisoners who pose no harm to the public are relatively common (Muntingh (2020); MoJ (2020). Where the early release of prisoners is not possible, some are being segregated from the main prison population in order to contain the spread of the disease.

At the time of writing, and following extensive literature searches, there have been no studies into the different approaches jurisdictions are taking regarding the testing of the prison population. Franco-Paredes, et al. (2020) report on issues of under testing and underreporting in the US, and highlight that as with previous pandemics of the 20th Century—A/H1N1 in 1918, A/H2N2 in 1957, A/H3N2 in 1958—and those of the 21st Century—SARS-CoV-1 in 2003, A/H1N1pdm in 2019, and MERS in 2012—the SARS-CoV-2 pandemic is not over until transmission is interrupted in all settings.

Siva's (2020) study of potential vaccination of prisoners identifies the misconception that prisoners are young and therefore at low risk. Many prisoners are at risk because of underlying chronic conditions, age, and their environment. Beaudry et al., (2020) in their study addressing the management of infectious diseases in prisons around the world, posited that Covid-19 presented greater challenges than other highly transmittable diseases. This is due to over-crowding in prisons and underlying health issues of prisoners. Beaudry et al., (ibid) go onto state that while the responses by individual countries to the pandemic vary, they are adopting the same overarching principles of interagency collaboration, health communication, screening for contagious diseases, restriction, isolation and quarantine and contact tracing.

Trust and ethicacy in prisons

This paper evaluates notions of trust between prisoners and prison officers heightened by the pandemic through the lens of Khodyakov's (2007) 3-dimensions to trust. The dimensions within Khodyakov's model extend two existing ideas of trust, namely, thick- and thin- trust by adding a third, institutional trust.

Thick trust, as defined by Khodyakov (2007), is the first type of trust individuals develop in their lives. It is the trust people have in their family members, relatives, and close friends. Thick trust is necessary for developing an optimistic attitude towards others, which makes social interaction possible. Trust, through this particular lens, depends on similarity and strong emotional relationships between people. Thick trust is generally restricted to those who are of the same or similar socio-economic background, which makes the development of such trust less risky (Cook, 2005). The basis for thick trust therefore is familiarity and similarity with a trustee. Those people who know each other well and who have a lot in common are more likely to trust each other. Within prisons, thick trust may be witnessed collectively amongst the prison population, or within sub-sets of prisoners, for example, those with similar offending behaviours. Thick trust often becomes automatic and people do not even perceive it as trust. However, the opposite can also be true. The more negative information people have about a person, the less likely they are to trust this person. Within a programme of testing, thick trust can be either a benefit or a hindrance. For example, if prisoners see others with whom they can relate to, participating in testing then they themselves may be inclined to follow. However, the opposite is also true: if an individual one trusts decides not to participate, others will do the same.

In contemporary western society, people interact with others whom they may not know well (Khodyakov, 2007). Through dealings with people, we develop weak social ties that are invaluable for obtaining access to otherwise unavailable resources (Ryan, 2016; Huxford, Fiori & Webster, 2020). The trust developed for members of dissimilar groups is known as thin trust (Khodyakov, 2007), sometimes called 'generalized trust' (Uslaner, 2002).

However, research by Hopkins & Reicher (2016) and Stott et al., (2001) argue that an absence of thick trust on the part of the prisoner-prison officer relationship can result in unsafe behaviours. This reinforces notions of thin trust and the weak ties that define it become the catalyst for developing or reinforcing unsafe patters of behaviours, potentially undermining attempts by prison staff to enforce guidance designed to stem the spread of Covid-19. Examples could include prisoners not maintaining a safe distance between each other or staff, or unnecessary physical contact such as shaking hands. This aspect of thin trust and unsafe behaviours designed to undermine authority may result in predefined notions around masculinity deterring male prisoners from adopting safety precautions, due to believing they are too strong to become ill (Capraro & Barcelo, 2020; Templeton et al., 2020). These ideas of masculinity can be a feature of thin trust and also a perceived notion that those administering the tests have some form of ulterior motive, predicated on a notion of erroneous suspicion. Georgiou, Delfabbro and Balzan (2020) state that this avoidance of testing is particularly acute in individuals who have faced stressful external factors, such as those in prison.

By placing trust in people whom we know little, we usually expect or believe that they will comply with our expectations, such as being fair, honest, and reasonable in their dealings with us (Uslaner, 2002). Trust is a necessary part of society and is required for successful cooperation because both parties have similar needs and interests and recognize the importance of collaboration in achieving common goals. Thin trust, however, is riskier than thick trust, because the former is about relationships with people whose real intentions may not be clear.

Models of trust formation are often regarded as a linear phenomenon that is formed by the interaction of users and the features of the system. However, Khodyakov (2007) argues that

there is a third dimension, which is institutional trust. As a concept, institutional trust is very different from trust in people, because the former may presuppose no encounters at all with the individuals or groups who are in some way "responsible" for them. It is the impersonal nature of institutions that makes the creation of institutional trust so difficult because it is more problematic to trust an abstract concept that does not express any feelings and emotions.

Campos-Castillo et al., (2016) state that trust in institutions is often more important than trust in society because institutions can have more resources to provide people with the means of achieving some of their goals (Khodyakov, 2007). As a result, individuals are more likely to rely on institutions, but only if they perceive the organization as legitimate, competent, and able to perform their duties efficiently (Khodyakov, 2007). However, the extent to which individuals trust institutions depends on whether an individual is external or internal to the institution in question (Uslaner, 2016). For example, society may express thick trust towards prisons to ensure that those convicted of serious crimes have various rights, such as free movement restricted. Contrary to this, those who are either awaiting trial or serving a custodial sentence may view the institution with thin trust, due to the belief that the regime within the organisation is not fair, honest, or reasonable. Based on Uslaner's (2016) ideas, when considering thick and thin trust through the lens of Covid-19 testing could be perceived as state-imposed and not to be trusted (akin to thin trust), particularly if issues of prisoner consent are not sufficiently addressed. At the same time, members of the public may view the testing of prisoners for Covid-19 with a level of contempt, particularly if they believe that the testing of the prison population is not fair or reasonable. This again is akin to the ideas of thin trust. The British Medical Journal (BMJ) (2020) and Jaiswal, LoSchiavo, & Perlman (2020) identify institutional mistrust, particular in government organisations such as healthcare and prisons, as a key factor preventing individuals from engaging in testing. This has been further compounded by un- or misinformed individuals, the so-called, armchair experts.

This idea of institutional trust highlights the complex nature of trust, particularly if viewed from the perception of society, who can form an option of both thick and thin trust depending on the context. This could explain why the UK government has not made public announcements relating to the testing of prisoners as it has done with the testing of care home residents.

What this section of the paper has highlighted is the complex nature of trust. While thick trust may exist within groups of prisoners, their mutual distrust in the institution may result in aspects of thin trust emerging in order to undermine attempts to minimise the risks of the disease spreading amongst the prison population.

Challenges and resolutions of mass prison testing

This section of the paper explores some of the key challenges associated with asymptomatic testing of prisoners. These include ethical considerations as well as some of the practicalities associated with a mass testing programme.

In order to provide some context to the challenges it is important to briefly discuss the approach being taken to testing. In England and Wales, testing for prisoners has been two-fold. Those who are displaying symptoms are tested and, where necessary, isolated.

However, a wider programme of mass testing of prisoners is designed to limit the spread of the disease and provide a means of containment. The latter programme of testing was planned at government level with the involvement of the UK government's department of Health and Social Care and the Ministry of Justice. The mass testing programme was established to ensure a consistent approach across all prisons in England and Wales (European Centre for Disease Prevention and Control, 2020). The administering of the tests to prisoners is being managed locally in consultation with prison governors/directors.

Challenge 1: Assumed participation of consent.

To assume an individual's prisoners participation in a Covid-19 testing programme, or to mandate testing, would pose infringement, ethically, for that individual's human rights. It would also reduce levels of institutional trust amongst prisoners due to them perceiving they have no choice but to participate in testing, which could be seen as unfair. As Uslaner (2016) reminds us, organisations have to be seen as fair, honest, or reasonable in order to develop a level of institutional trust. Raffle, Pollock & Harding-Edgar (2020) argue that ethical standards require that participants be informed about the purpose, limitations, and uncertainties, as well as whether testing is an offer or is mandatory and how their data will be used. That said, some prisoners, particularly those suffering from dementia, may not have the capacity to make a decision relating to participation in the testing programme. Therefore, informed consent should be gained from every prisoner before being tested. This, however, brings with it a number of subsequent issues. For example, it is well documented that there are low levels of literacy in prisons (Creese, 2015; Lear, 2016). Therefore, providing prisoners with information that is appropriate to their level of literacy would be challenging, particularly where individuals feel ashamed or insecure of their ability. One option could be to obtain verbal consent; however, this raises other issues around the recording of consent and who obtains this from prisoners. The obvious answer would be prison officers, but this raises questions concerning the power relationship between officer and prisoner. While verbal consent will be sufficient for some prisoners, those whose first language is not that of the country they are currently imprisoned in, presents additional challenges, most notably around translation, either by a fellow prisoner or through the use of an external translation service (Easton, Entwistle and Williams, 2010) Yet these challenges are not unique to the current pandemic.

This power relationship focuses on the two main actors within the scenarios. The power recipients' (prisoners') beliefs regarding the legitimacy of power holders (prison officers) and how legitimacy is shaped during specific encounters between prisoners and officers. How power holders (prison officers) exercise their power in general, influences whether they maintain legitimacy and ultimately compliance with the prison population (Bottoms & Tankebe, 2012; Wooldredge & Steiner, 2016). In a prison context, officers who tend to rely on coercion to achieve compliance may weaken the legitimacy of the prison officer workforce with the prisoner population, ultimately amplifying rule-breaking. Officers who use their expertise for problem-solving or who capitalise on the respect they have cultivated over time to gain compliance may reinforce their legitimacy and promote adherence to the rules (Stichman & Gordon, 2015; Wooldredge & Steiner, 2016).

This approach requires the relationship between prison officer and prisoner to involve mutual respect but also uphold the norms of society (Bottoms & Tankebe, 2012; Sparks, Bottoms, & Hay, 1996). In terms of Covid-19 testing, a coercive approach to getting prisoners to comply with requests for testing is both undesirable in terms of prison officer legitimacy and

unethical in terms of the prisoners' participation. Ethically, participants cannot be forced to participate in testing as it will be in breach of their human rights. Conversely, if prison officers capitalise on the respect they cultivated to get prisoners to comply with requests to participate in testing, then prisoners may well feel compelled through loyalty. Again, this is unethical as consent is not independent as a power relationship remains between prison officer and prisoner. Even if using prison officers were ethical, there is an assumption that prisons have sufficient staff available. The issue of the power relationship is not confined to prison officers and applies equally to healthcare staff working in prison medical centres. To ensure ethicacy, it is important that prisoner consent is sought independently of prison staff. This may involve bringing staff in from outside the prison system on the proviso that they obtain the necessary security clearance to go onto the accommodation wings.

Challenge 2: Test administration

Having obtained consent, there are a number of practical issues that need to be considered and which pose particular problems within prisons. These include the extent to which prisoners need to be supervised when undertaking the Covid-19 test. Viral testing is used for asymptomatic individuals. This involves a nasal swab being taken from both nostrils of an individual. While the tests can be self-administered, it is important they are done correctly. Therefore, it would be advisable for individuals to be supervised to ensure that the test is both administered according to manufacturer guidelines and that the test is not contaminated during the process. However, as Fatah and Cohn (2003) state, swab tests are a more dignified approach then urine samples, where prisoners also need to be observed and do not require specialist training as required for blood samples. Therefore, in England and Wales an external organisation has been tasked with completing the tests. While the practicalities of doing so are fairly straightforward – a prison officer accompanies the individual conducting the tests around the accommodation wings - the presence of an unknown person does present further trust issues for prisoners. While, prison officers and prison healthcare workers will generally be known to prisoners, the presence of another unknown individual could further reduce the number of prisoners willing to participate in testing. Data on the uptake of tests by prisoners is sparse. At the end of July 2020, out of fourteen prisons, with a total population of 10,005 prisoners only 2,542 prisoners had consented to testing, representing a 25% uptake. Of these, four had tested positive representing 0.15% of prisoners who were tested. This suggests that, at that point, a majority of prisoners were not consenting to being tested. Extrapolating forward to the entire prison population, we could infer that if the same response rate is experienced, then only around 20,300 prisoners would be tested out of a prison population of nearly 80,000. Therefore, there is a significant work to do to increase the number of prisoners being tested and to mitigate any perceived barriers to testing resulting from issues associated with trust.

In November 2020, the Ministry of Justice published prevalence data showing that 1529 prisoners had tested positive and there had been 55 deaths resulting from Covd-19. This was based on 20,000 tests (MoJ, 2020d), representing 7.6% of tested prisoners having the desease. Therefore, between July and November there has been a significant increase in the proportion of prisoners contracting Covid-19.

Challenge 3: Technological barriers

One of the biggest challenges is that test kits need to be registered online and participants need to supply either a mobile phone number or an email address to receive the results. For members of the public, this is not a particular issue. In order to register a test kit online, they need to enter the bar-code from the test kit along with their details into a website. This

ensures that processing laboratories can process the test kits and send the results to the correct recipient. This offers several challenges in prisons. First, mobile phones or access to email within prisons is prohibited. Therefore, prisoners would not receive the results using established methods such as emails or text messages. Second, the technology used to register test kits, such as internet-enabled laptops or tablet devices are rarely allowed in prisons and where they are, not on accommodation wings. Donelan et al., (2020) note that prisons have been slow to introduce technology and the beuracracy associated with it is often seen as a barrier. To mitigate these difficulties, institutions need to think carefully about the data they collect from individuals and how this is inputted into the online registration system. In order to minimise the amount of data being collected from prisoners, it might be that their unique prisoner number is used instead of their full name. This would involve the matching of the test kit bar code with the prisoner number, both at the point of test administration and the disaggregation of data when test results are returned.

Although not ideal, this would need to be done manually, albeit there is the potential for a thousand or more prisoners requiring a test within a single prison. Raffle, et al (2020) state that for a testing system to work, it needs to be supported by the right information technology system. Associated with this is the risk of data errors as this information will have to be recorded manually on accommodation wings, before test kits and prisoner details can be entered into the registration system. At the point of data entry, the same email address could be entered for all prisoners. This could be a generic email address for the healthcare centre within the prison. However, this will necessitate a staff member monitoring emails as they arrive to check for any prisoners who test positive and will need to be quarantined . Raffle, et al (2020) observe that without a good system, the benefits of mass testing are unlikely to be realised and the main outcomes will be harms from unwarranted intervention, confusion and mistrust. The system must ensure that testing is accessible, trusted, and tailored to all sections of society, which is problematic within prison systems. The government did engage the UK's National Health Service's (NHS) digital service to resolve some of the technological challenges, making the mass registration of prisoners' test kits easier. The test results once received by the prison will need to be included in a prisoner's medical records for clinical purposes. The issues highlighted here may be mitigated as testing systems become more sophisticated and on-site, lab-free testing systems become more commonplace (Cook, et. al., 2020). Donelan et al., (2020) suggests that as a result of the Covid-19 pandemic, it may be time to rethink the use of technology in prisons.

At the end of November 2020, the UK government approved the use of a lateral flow test, which provides the results of a nasal swab in approximately 20 minutes and without the need to send tests off to a laboratory. In January 2021, a question was raised in the UK parliament asking how many prisoners have been tested using lateral flow tests. Government ministers were, however, unable to provide an answer to the question. In the meantime, Deeks, Raffle and Gill (2021) state that further evidence is needed regarding the reliability of this form of testing.

Conclusion

At first sight it would appear that testing of prisoners to determine the prevalence of the Covid-19 illness in the prison system would be a simple task. However, as this paper has shown there are issues with trust which need careful consideration if the proportion of prisoners taking tests is to increase. If the challenges are not adequately addressed then as

Raffle, et al (2020) remind us, the benefits of mass testing are unlikely to be realised and the main outcomes will be harms from unwarranted intervention, confusion and mistrust.

In the interests of public health, it is important that prisoners are tested in order to avoid a potential explosive outbreak within prisons. Such an outbreak would be difficult to contain, given the limited space to isolate prisoners. Additionally, those who are most ill would need transferring to hospitals as prison health faciltities do not have the specialist resources to care for them.

While this paper is not suggesting that testing of prisoners is not important or necessary, it is evident that issues identified here need to be resolved prior to commencing a programme of mass testing. Careful consideration needs to be given to how consent is obtained from prisoners, resulting from issues around thick and thin trust as described by Khodyakov (2007).

As the UK enters it's third lockdown, prisons have started to routinely test all prison staff on a regular basis in order minimise the risk of the infection entering prisons. In addition, more telephones have been installed in prisons in England and Wales so that, in the abscence of visits, prisoners can maintain contact with family members and their legal representatives. All prisoners entering prisons or being transferred are being routinely tested and, where necessary, quarantined in order to minimise the risk of infection.

While the UK, the USA, and most of Europe start national vaccination programmes for Covid-19, there is a notable absence of prison populations in existing planning and guidance. The UK's Joint Committee on Vaccination and Immunisation (JCVI) (2021) have stated that the first priority for vaccines will be to prevent deaths and protect health and social care staff and systems, with no specific mention of prisons.

This paper does not have the answers to many of the issues raised. Indeed, some of these have been addressed at a national level, including the online registration of test kits. Whereas others, such as issues around trust, need to be addressed by individual prisons. What is clear is that testing of prisoners is fraught with challenges and, as with this pandemic is unlikely to disappear soon. Therefore, a systematic approach to dealing with this and any future pandemics is needed to ensure that prisoners' health is maintained and that prisons can continue to function despite the epidemiological challenges facing them.

References

Aarons G. A. (2006). Transformational and transactional leadership: association with attitudes toward evidence-based practice. *Psychiatric services*, 57(8), 1162–1169.

Allen, T., Cho, E., & Meier, L. (2014) Work–Family Boundary Dynamics, *Organizational Psychology and Organizational Behavior* 1(1), 99-121.

Allison, E. (2020). We need far more coronavirus tests in British prisons. The Guardian 30th June 2020. Avilalbe online at: https://www.theguardian.com/society/2020/jun/30/we-need-far-more-coronavirus-tests-in-british-prisons

Associated Press, (2020). One in every five prisoners in US has tested positive for Covid-19. Available online at: https://www.theguardian.com/us-news/2020/dec/18/us-prisoners-coronavirus-stats-data

Barling, J., & Cloutier, A. (2017). Leaders' mental health at work: Empirical, methodological, and policy directions. *Journal of Occupational Health Psychology, 22*(3), 394–406.

BMJ (2020) Covid-19: how doctors and healthcare systems are tackling coronavirus worldwide. 368:m1090

Bottoms, A., & Tankebe, J. (2012). Beyond procedural justice: A dialogic approach to legitimacy in criminal justice. *Journal of Criminal Law and Criminology* 102, 119–70.

Beaudry, G., Zhong, S., Whiting, D., Javid, B., Frater, J., & Fazel S. (2020). Managing outbreaks of highly contagious diseases in prisons: a systematic review *BMJ Global Health* 5: 003201.

Campos-Castillo, C., Woodson, B., Theiss-Morse, E., Peek, M., Sacks, T., Fleig-Palmer, M. (2016). *Examining the Relationship Between Interpersonal and Institutional Trust in Political and Health Care Contexts*. In Shockley, E., Neal, T., PytlikZillig, L Bornstein, B. (Eds) *Interdisciplinary Perspectives on Trust*. Springer International Publishing Switzerland.

Capraro, V., & Barcelo, H. (2020). The effective of messaging and gender on intentions to wear face covering to slow down Covid019 transition. https://doi.org/10.31234/osf.io/tg7vz

Casella, F. (2020). Can the COVID-19 epidemic be controlled on the basis of daily test reports? *arXiv* available online at: https://ui.adsabs.harvard.edu/abs/2020arXiv200306967C

Christensen, T., & Lægreid, P. (2020) Balancing Governance Capacity and Legitimacy: How the Norwegian Government Handled the COVID-19 Crisis as a High Performer. *Public Administration Review* early cite. DOI: 10.1111/puar.13241.

Cook, G., Gibani, M., Toumazou, C., Sohbati, M., Sahoo, R., Karvela, M., Hon, T., De Mateo,S., Burdett, A., Leung, K., Barnett, J., Orbeladze, A., Luan, S., Pournias, S., Sun, J., Flower, B., Bedzo-Nutakor, J., Amran, M., Quinlan, R., Skolimowska, K., Herrera, C., Rowan, A., Badhan, A., Klaber R., Davies, G., Muir, D., Randell, P., Crook, D., Taylor, G., Barclay, W., Mughal, N., Moore, L., Jeffery, K. (2020). Assessing a novel, lab-free, point-of-care test for SARS-CoV-2 (CovidNudge): a diagnostic accuracy study. *The Lancet Microbe.* Published: September 17, 2020 DOI: https://doi.org/10.1016/S2666-5247(20)30121-X

Creese, B. (2015) *An assessment of the English and maths skills levels of prisoners in England*. Centre for Education in the Criminal Justice System at UCL Institute of Education, UK.

Deeks, J., Raffle, A., & Gill, M. (2021). Covid-19: government must urgently rethink lateral flow test roll out. *BMJ.* Available online at: https://blogs.bmj.com/bmj/2021/01/12/covid-19-government-must-urgently-rethink-lateral-flow-test-roll-out/

Donelan, C. J., Hayes, E., Potee, R. A., Schwartz, L., & Evans, E. A. (2020). COVID-19 and treating incarcerated populations for opioid use disorder. *Journal of Substance Abuse Treatment*, 108216.

Easton, P., Entwistle, V.A. & Williams, B. Health in the 'hidden population' of people with low literacy. A systematic review of the literature. BMC Public Health 10, 459

European Centre for Disease Prevention and Control. (2020). COVID-19 testing strategies and objectives. ECDC: Stockholm; 2020.

Fatah, A., & Cohn, J. (2003). Saliva as an Alternate To Urine and Blood. *Corrections Today*, 65(6).

Franco-Paredes, C., Jankousky, K., Schultz, J., Bernfeld, J., Cullen, K., Quan, N., Kon, S., Hotez,P., Henao-Martínez,A., Krsak, M. (2020) COVID-19 in jails and prisons: A neglected infection in a marginalized population. *PLoS Negl Trop Dis* 14(6): e0008409. https://doi.org/10.1371/journal.pntd.0008409

Georgiou, N., Delfabbro, P., & Balzan, R. (2020). COVID-19-related conspiracy beliefs and their relationship with perceived stress and pre-existing conspiracy beliefs. *Personality and individual differences*, 166, 110201.

Gostin L.O, & Wiley L.F. (2020). Governmental Public Health Powers During the COVID-19 Pandemic: Stay-at-home Orders, Business Closures, and Travel Restrictions. *JAMA,* 323(21), 2137–2138.

Greenhaus, J., & Kossek, E. (2014). The Contemporary Career: A Work–Home Perspective *Organizational Psychology and Organizational Behavior* 1(1), 361-388.

Hopkins, N., & Reicher, S. (2016). The psychology of health and well-being in mass gatherings: A review and research agenda. *Journal of epidemiology and global health,* 6(2), 49-57.

Howard League for Penal Reform, (2020). Howard League and Prison Reform Trust urge ministers to move further and faster to protect prisoners, staff and public from coronavirus. Available online at: https://howardleague.org/news/howard-league-and-prison-reform-trust-urge-ministers-to-move-further-and-faster-to-protect-prisoners-staff-and-public-from-coronavirus/

Huxhold, O., Fiori, K.L., Webster, N.J., Antonucci, T.C., (2020). The Strength of Weaker Ties: An Underexplored Resource for Maintaining Emotional Well-Being in Later Life, *The Journals of Gerontology* 75(7), 1433–1442,
Khodyakov, D. (2007). Trust as a Process: A Three-Dimensional Approach. *Sociology*, 41(1), 115–132.

Jaiswal, J., LoSchiavo, C., & Perlman, D. C. (2020). Disinformation, Misinformation and Inequality-Driven Mistrust in the Time of COVID-19: *Lessons Unlearned from AIDS Denialism. AIDS and behavior*, 24(10), 2776–2780. https://doi.org/10.1007/s10461-020-02925-y

Joint Committee on Vaccination and Immunisation (JCVI) (2021). advice on priority groups for COVID-19 vaccination, 30 December 2020 (updated Jan 2021). Available online at: https://www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020/joint-committee-on-vaccination-and-immunisation-advice-on-priority-groups-for-covid-19-vaccination-30-december-2020

Kinner, S. A., Young, J. T., Snow, K., Southalan, L., Lopez-Acuña, D., Ferreira-Borges, C., & O'Moore, É. (2020). Prisons and custodial settings are part of a comprehensive response to COVID-19. *The Lancet Public Health*, 5(4), 188-189.

Lancet, (2020). Covid-19: learning from experience.
Published online 2020 Mar 26. doi: 10.1016/S0140-6736(20)30686-3

Lear, J. (2016). Prisoners' literacy and numeracy levels. *Electronic Platform for Adult Learning in Europe*

MoJ – Ministry of Justice. (2020). Population bulletin: weekly 21 August 2020. Available online at: https://www.gov.uk/government/statistics/prison-population-figures-2020

MoJ – Ministry of Justice. (2020a). Measures announced to protect NHS from coronavirus risk in prisons. Available online at: https://www.gov.uk/government/news/measures-announced-to-protect-nhs-from-coronavirus-risk-in-prisons

MoJ – Ministry of Justice (2020b). Coronavirus and prisons. Available online at: https://www.gov.uk/guidance/coronavirus-covid-19-and-prisons

MoJ – Ministry of Justice (2020c). COVID-19: National Framework for Prison Regimes and Services. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/889689/prisons-national-framework.pdf

MoJ – Ministry of Justice (2020d). HM Prison and Probation Service COVID-19 Official Statistics. Data to 31 October 2020. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/935053/HMPPS_COVID19_Oct20_Pub_Final.pdf

Muntingh, L. (2020). Africa, Prisons and COVID-19, *Journal of Human Rights Practice,* 12(2), 284–292

Prison Reform Trust (2020). Tackling the spread of coronavirus in prison.
Available online at: http://www.prisonreformtrust.org.uk/PressPolicy/News/Coronavirus

Prisoners Education Trust (2020). Covid-19 and prison education: Information from HMIP short scrutiny visits.

Raffle, A., Pollock A., Harding-Edgar L. (2020) Covid-19 mass testing programmes. *British Medical Journal* 370:m3262

Ryan, L. (2016) Looking for Weak Ties: Using a Mixed Methods Approach to Capture Elusive Connections. *The Sociological Review*. 64(4), 951-969.

Schraer, R. (2020). Coronavirus: Testing boss 'very sorry' for shortages. Available online at: https://www.bbc.co.uk/news/health-53990068

Siva, N. (2020). Experts call to include prisons in COVID-19 vaccine plans. *The Lancet*, 396(10266), 1870.

Sparks, R., Bottoms, A., Hay, W. (1996). *Prisons and the Problem of Order*. U.K.: Oxford University Press.

Stichman, A., Gordon, J. (2015). A preliminary investigation of the effect of correctional officers' bases of power on their fear and risk of victimization. *Journal of Crime and Justice* 38, 543–58.

Stott, N., Hutchison, P., & Drury, J. (2001). Hooligans abroad? Inter-group dynamics, social identity and participation in collective disorder at the 1998 World Cup finals. *British Journal of Social Psychology*. 40, 359-384.

Templeton, A., Guven, S., Hoerst, C., Vestergren, S., Davidson, S., Ballentyne, S., Madsen, H., Choudhury, S. (2020). Inequalities and identity processes in crises: recommendations for facilitating safe responses to the Covid-19 pandemic. *British journal of social psychology*. 59, 674-685.

Uslaner, E. (2016) *Who do you trust?* In Shockley, E., Neal, T., PytlikZillig, L Bornstein, B. (Eds) *Interdisciplinary Perspectives on Trust*. Switzerland: Springer International Publishing.

Wooldredge, J., Steiner, B. (2016). The exercise of power in prison organizations and implications for legitimacy. *Journal of Criminal Law and Criminology* 106, 125–66.

World Health Organisation (WHO). (2020) Naming the coronavirus disease (COVID-19) and the virus that causes it. Available at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it

World Health Organisation (WHO). (2020a) COVID-19 in prisons – Member States and UNODC reiterate their commitment to the Nelson Mandela Rules. Available at: https://www.unodc.org/unodc/en/frontpage/2020/July/covid-19-in-prisons--member-states-and-unodc-reiterate-their-commitment-to-the-nelson-mandela-rules.html